#AF ZMW

Docket No.: KCC-14,829

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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| Applicants: | Raymond Jeffrey MAY, et al. | Group No. 1771 |
| Serial No.: | 09/855,188 | |
| Filing Date: | 14 May 2001 | Examiner: N. Velazquez |
| Title: | TARGETED ELASTIC LAMINATE HAVING ZONES OF DIFFERENT POLYMER MATERIALS | |
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**APPEAL BRIEF UNDER 37 CFR 41.37**

Mail Stop Appeal Brief - Patents
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P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants herewith file their Appeal Brief in the above-identified case, pursuant to their Notice of Appeal filed 19 July 2005.

1. REAL PARTY IN INTEREST

The real party in interest is Kimberly-Clark Worldwide, Inc., the assignee of the present application (as recorded at reel 012168, frame 0940).

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Appeal Brief - Patents, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on

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2. RELATED APPEALS AND INTERFERENCES

Applicants are not aware of any related appeals or interferences with regard to the present application.

3. STATUS OF CLAIMS

Claims 1-17, 19-21, and 50-59 are pending in the application. The present Appeal is directed to Claims 1-17, 19-21, and 50-59, which were finally rejected in an Office Action mailed 16 May 2005.

4. STATUS OF AMENDMENTS

No amendment to the claims was filed subsequent to the most recent final rejection.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a targeted elastic laminate material 5 including a series of elastomeric filaments 12, 16 bonded between two facing layers 18, 20. (Page 3, lines 10-15; Figs. 5A and 5B). The targeted elastic laminate material 5 has at least one low tension zone 10 and at least one high tension zone 14, each including a plurality of the elastomeric filaments 12, 16 running in the same longitudinal direction. (Page 3, lines 2-5; Page 16, lines 3-15; Figs. 5A and 5B). The elastomeric filaments 12 in the low tension zone 10 include a different elastomeric polymer than the elastomeric filaments 16 in the high tension zone 14. (Page 3, lines 10-15; Figs. 5A and 5B). Additionally, a barrier layer 75 is positioned between at least a portion of each of the two facing layers 18, 20. (Page 15, lines 11-15; Figs. 5A and 5B). The invention is also directed to disposable garments 2 including the targeted elastic laminate material 5. (Page 33, line 19 – page 34, line 1 and 15-16; Fig. 10).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1) Claims 1-7, 13-15, 20-21, and 50-59 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Melbye et al.* (PCT Publication No. WO 95/34264) in view of *Cederblad et al.* (U.S. Patent No. 5,885,686) and *Beitz et al.* (U.S. Patent No. 6,248,097).

2) Claims 8-12, 16-17, and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Melbye et al.* (PCT Publication No. WO 95/34264), *Cederblad et al.* (U.S. Patent No. 5,885,686), and *Beitz et al.* (U.S. Patent No. 6,248,097), and further in view of *Mleziva et al.* (U.S. Patent No. 6,057,024).

7. ARGUMENT

**I. Claims 1-7, 13-15, 20-21, and 50-59 are non-obvious under 35 U.S.C. 103(a) based on the teachings of *Melbye et al.* in view of *Cederblad et al.* and *Beitz et al.***

In the final Office Action, mailed 16 May 2005, the Examiner rejected Claims 1-7, 13-15, 20-21, and 50-59 under 35 U.S.C. 103(a) as being unpatentable over *Melbye et al.* in view of *Cederblad et al.* and *Beitz et al.*

Independent Claims 1 and 50 both recite a targeted elastic laminate material including a plurality of elastomeric filaments and a barrier layer positioned between two facing layers. The elastomeric filaments in a high tension zone of the laminate have a different elastomeric polymer composition than the elastomeric filaments in a low tension zone of the laminate. The elastomeric filaments in both the high and low tension zones run in the same longitudinal direction.

*Melbye et al.* disclose elastic sheet-like composites, disposable garments including such elastic sheet-like composites, and methods of making such elastic sheet-like composites; however, ***Melbye et al.* fail to disclose or suggest sheet-like composites having at least two different types of strands made from at least two different types of materials, or a barrier layer**.

*Cederblad et al.* disclose an extruded bicomponent elastomeric netting, but **fail to disclose or suggest a barrier layer**. Furthermore, the bicomponent elastomeric netting includes one set of extruded strands in one direction consisting essentially of a

first elastic resin component and another set of extruded strands consisting essentially of a second elastic resin component ***perpendicular*** to the first set. Thus, although *Cederblad et al.* disclose elastic strands of different compositions, there are **no *zones* of different tension** and **no *zones* of different compositions**. More particularly, in *Cederblad et al.*, the strand composition is constant in the machine direction (MD) as well as in the transverse direction (TD), such that all of the non-overlapping strands have the same properties as one another. Thus, the netting is not "targeted" in the sense that the "targeted" elastic materials of the present invention have different tension in different zones in the same longitudinal direction of the material. In contrast, the netting in *Cederblad et al.* may have different tension in the MD than in the TD, but all of the MD tension is uniform, as is all of the tension in the TD.

*Beitz et al.* disclose a gusset flap member that can include a barrier layer.

The Examiner suggests that because the references all involve elastomeric filaments, the purposes disclosed by *Cederblad et al.* and *Beitz et al.* would have been recognized in the pertinent art of *Melbye et al.*

It is Applicants' understanding that in order to establish a prima facie case of obviousness, there must be **some suggestion or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, **to modify the reference or to combine reference teachings**. Despite the fact that *Melbye et al.*, *Cederblad et al.*, and *Beitz et al.* all involve elastomeric filaments, there is no suggestion or motivation to dissect the concept of using strands of different compositions from the elastomeric netting of *Cederblad et al.* and the concept of a barrier layer from the gusset flap member of *Beitz et al.*, and to insert these concepts into the elastic sheet-like composites of *Melbye et al.*

More particularly, the elastic sheet-like composites in *Melbye et al.* include one or two sheets thermally bonded directly to a multiplicity of molten, extruded elastic strands. The elastic strands are formed by extruding an elastic thermoplastic material through a single extruder die. The single die plate may have varied spacing and/or diameters to provide variable tension. **One of the benefits of the invention in *Melbye et al.* is that the methods afford "versatility in selecting characteristics of the elastic sheet-like composites to be produced *without major modifications of the equipment.*"** (Page 2, lines 3-8). Thus, **it would be *contrary to the intended purpose of***

***Melbye et al.* to form an elastic sheet-like composite having at least two different types of strands made from at least two different types of materials** because separate extruders and/or dies would be required to apply the different materials, and the addition of more extruders and/or dies would be a major modification of the equipment.

Despite Applicants' claims being product claims, the fact remains that the product and process in *Melbye et al.* are interrelated. More particularly, ***there is no suggestion or motivation to modify the product if, by doing so, the modifications required to form the product would be repugnant to the intended purpose of the process.***

Consequently, by disclosing a composite including strands extruded from a single extruder using a method in which no major modifications are made, ***Melbye et al. teach away* from the inclusion of two or more types of strands made from different elastomeric polymers**. Furthermore, the proposed modification of using at least two different types of elastomeric materials, which would require the use of at least two extruders and/or dies, would render *Melbye et al.* unsatisfactory for its intended purpose, which is to provide versatility in selecting characteristics of the elastic sheet-like composites without major modifications of the equipment, and thus change the principle of operation of *Melbye et al.*

The Examiner suggests that the extruded strands in one direction consisting essentially of a first elastic resin component and another set of extruded strands consisting essentially of a second elastic resin component perpendicular to the first set in *Cederblad et al.* provides the *Melbye et al.* reference with an alternative embodiment that would provide the elastic material with different zones of elasticity by using two different elastomeric strands instead of producing these areas with an increased quantity of strands in certain regions or using thicker and thinner strands. However, there is no suggestion in either *Melbye et al.* nor *Cederblad et al.* to use different elastomeric compositions to create different "zones" of elasticity akin to using differing quantities of strands or thicker and thinner strands. Instead, despite the use of different elastomeric compositions in the strands of *Cederblad et al.*, the bicomponent elastomeric netting of *Cederblad et al.* has **uniform tension** in the machine direction (MD) as well as **uniform tension** in the transverse direction (TD). Even if the entirety of the MD were considered

to be one zone and the entirety of the TD were considered to be a second zone, these zones would not be mutually exclusive across either the MD or the TD.

Moreover, *Cederblad et al.* disclose that fabrics and support materials with elastic properties "are expensive to produce, and are significantly different from a fiber formed extruded netting product." (Col. 2, lines 20-27). *Cederblad et al.* strive to minimize interference with the elasticity of the strands (Col. 4, lines 6-18), thus **teaching away from the combination of the netting bonded to any additional materials, such as facing materials**. Since *Cederblad et al.* bluntly state that the material in *Cederblad et al.* is significantly different from fabrics and support materials with elastic properties, *Cederblad et al.* thereby teach away from the proposed combination of *Melbye et al.* and *Cederblad et al.* Since *Cederblad et al.* teach away from the proposed combination of *Melbye et al.* and *Cederblad et al.*, there is no motivation to modify the sheet-like composites in *Melbye et al.* based on the configuration of the netting in *Cederblad et al.*

*Beitz et al.* disclose containment flaps and leg gussets within a garment. The leg gussets are not formed as a sheet-like composite, but instead are formed as separate components specifically configured for application to the garment. The leg gussets may include a barrier layer with a first arrangement of elastomeric members positioned between the barrier layer and the fabric layer within a leg gusset section of the gusset-flap member, and a second arrangement of elastomeric members attached to at least the fabric layer within a containment flap section of the gusset-flap member. However, **there is no suggestion in *Beitz et al.* to form the gusset-flap member as a sheet-like composite**, thus there is no suggestion to create a sheet-like composite having a barrier layer positioned therein.

Another criterion for establishing a prima facie case of obviousness is that there must be a reasonable expectation of success. Absent impermissible hindsight, a person skilled in the art would not logically combine the teachings of *Melbye et al.* with the teachings of *Cederblad et al.* and *Beitz et al.* to render Applicants' claimed invention because *Cederblad et al.* disclose a netting product and, further, teach away from the combination of the netting bonded to any additional materials, and *Beitz et al.* disclose a gusset-flap member within a garment, whereas *Melbye et al.* disclose a sheet-like composite and, further, teach away from composites that would require major modifications to the equipment described therein. Even if the three references were

combined, there would be no suggestion to a person skilled in the art to extract the "two different elastomeric resins" concept from *Cederblad et al.* and the barrier layer concept from *Beitz et al.* and insert these concepts into the sheet-like composite of *Melbye et al.*

*Melbye et al.* disclose elastic strands that differ in diameter or in spacing between one another to achieve different levels of tension in areas between the strands in the sheet-like composite when the sheet-like composite is stretched in the longitudinal direction. (Page 4, line 21 – Page 5, line 3). In contrast, *Cederblad et al.* disclose elastomeric performance of the netting itself that can be fine-tuned in both the transverse and longitudinal directions through: (1) the composition of the two elastomeric resin blends, (2) the controlled strand crossover design, and (3) the different degrees of melt orientation. (Col. 4, lines 19-24). *Beitz et al.* disclose that the elastomeric members within the gusset-flap member may be constructed to provide substantially equal elastic forces, or may be constructed to provide different elastic forces, such as by using individual strands of different diameter or other size, or strands that are configured with different amounts of elongation to thereby provide a gradient or other variation of elastic tensions. There is no suggestion in either *Melbye et al.*, *Cederblad et al.*, or *Beitz et al.* that using different elastomeric resins will produce effects similar to varying the diameter or spacing of elastic strands. Thus, in the combination of *Melbye et al.* with *Cederblad et al.* and *Beitz et al.* there is no teaching or suggestion to make Applicants' claimed invention, nor is there any reasonable expectation of success in achieving Applicants' claimed invention.

Yet another factor in establishing a prima facie case of obviousness is that the prior art references, when combined, must teach or suggest all the claim limitations. Neither *Melbye et al.* nor *Cederblad et al.* nor *Beitz et al.*, alone or in combination, disclose or suggest a targeted elastic laminate material having different zones of tension, with **filaments in one zone having a different composition than filaments in a second zone**. Furthermore, neither *Melbye et al.* nor *Cederblad et al.* nor *Beitz et al.*, alone or in combination, disclose or suggest a targeted elastic laminate material having filaments of different compositions bonded to a facing material, wherein the **different types of filaments run in the same longitudinal direction**. Although *Cederblad et al.* disclose elastic strands of different compositions, there are no "zones" of different tension or "zones" of different compositions. As explained above, in *Cederblad*

*et al.* the strand composition is constant in the machine direction as well as in the transverse direction, such that all of the MD tension is uniform and all of the TD tension is uniform. Therefore, a person skilled in the art would find no motivation to combine the teachings of *Melbye et al.* with the teachings of *Cederblad et al.* Even if *Melbye et al.* were combined with *Cederblad et al.* and *Beitz et al.*, the combination would still fail to achieve the targeted elastic laminate material of the present invention because neither *Melbye et al.* nor *Cederblad et al.* nor *Beitz et al.*, nor any combination thereof, discloses or suggests the combination of strands of different elastic polymers applied in the same longitudinal direction between two facing materials to provide zones of varying tension, along with a barrier layer positioned between at least a portion of each of the facing materials.

For at least the reasons presented above, Applicants respectfully request the Board to overturn this rejection.

**II. Claims 8-12, 16-17, and 19 are non-obvious under 35 U.S.C. 103(a) based on the teachings of *Melbye et al.*, *Cederblad et al.*, and *Beitz et al.*, and further in view of *Mleziva et al.***

In the final Office Action, mailed 16 May 2005, the Examiner rejected Claims 8-12, 16-17, and 19 under 35 U.S.C. 103(a) as being unpatentable over *Melbye et al.*, *Cederblad et al.*, and *Beitz et al.*, and further in view of *Mleziva et al.*

As explained above, *Melbye et al.*, *Cederblad et al.*, and *Beitz et al.*, alone or in combination, fail to disclose or suggest the combination of strands of different elastic polymers applied in the same longitudinal direction between two facing materials to provide zones of varying tension, along with a barrier layer positioned between at least a portion of each of the facing materials.

*Melbye et al.*, *Cederblad et al.*, and *Beitz et al.* further fail to disclose any elastic tension relation between the low tension zone and the high tension zone, they do not disclose employing an elastomeric adhesive to bond the facing layer and the filaments, and they do not disclose using a spunbond material or a meltblown continuous filament composite web for the facing material.

*Mleziva et al.* disclose a composite elastic material including ribbon-shaped elastic elements joined to an extensible layer. *Mleziva et al.* fail to disclose or suggest high and low tension zones in the composite elastic material.

Neither *Melbye et al.*, *Cederblad et al.*, *Beitz et al.*, nor *Mleziva et al.*, alone or in any combination, disclose or suggest a laminate including at least one low tension zone including a plurality of elastomeric first filaments and at least one high tension zone including a plurality of elastomeric second filaments, wherein the first and second filaments are applied in the same longitudinal direction between two facing materials to provide zones of varying tension, along with a barrier layer positioned between at least a portion of each of the facing materials.

The Examiner suggests that it would have been obvious to one of ordinary skill in the art to use the extrusion processes disclosed in *Mleziva et al.* to create the facing materials recited in Claims 16 and 17 of the present invention. The Examiner also suggests that it would have been obvious to one of ordinary skill in the art to use an elastomeric adhesive to bond the low and high tension zones to the facing material because *Mleziva et al.* disclose adhesive bonding of fibers to facing layers as an alternative method to autogeneously bonding the layers and strands.

However, as pointed out above, *Melbye et al.* emphasize a process that involves no major modifications of the equipment. Since the composites in *Melbye et al.* are formed by extruding strands of molten thermoplastic material onto the sheet of material to form elastic strands thermally bonded to the sheet of material, major modifications would be required to instead adhesively bond elastic strands to a sheet of material. Additionally, *Cederblad et al.* teach away from the whole concept of bonding a facing material to elastic strands. For this reason, and the other reasons presented above, the combined teachings of *Melbye et al.*, *Cederblad et al.*, *Beitz et al.*, and *Mleziva et al.* fail to disclose or suggest the targeted elastic laminate material of Claims 16, 17, and 19 of the present invention.

The Examiner also suggests that it would have been obvious to have optimized the elastomeric material of the present invention by providing the material with first and second strands of specific polymeric materials in order to form a fabric having the desired elastic tension through the process of routine experimentation, based on *Cederblad et al.*'s use of different elastomeric materials. However, as explained above,

*Cederblad et al.* use all the same polymeric materials in the MD and all the same polymeric materials in the TD, resulting in a netting having uniform tension in the MD and in the TD, respectively. For this reason, and the other reasons presented above, the combined teachings of *Melbye et al.*, *Cederblad et al.*, *Beitz et al.*, and *Mleziva et al.* fail to disclose or suggest the targeted elastic laminate material of Claims 8-12 of the present invention.

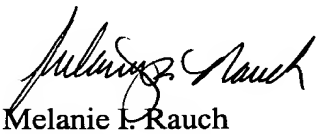
For at least the reasons presented above, Applicants respectfully request the Board to overturn this rejection.

8. CONCLUSION

For the above reasons, Applicants respectfully submit that the rejections posed by the Examiner are improper as a matter of law and fact. Accordingly, Applicants respectfully request the Board reverse the rejection of Claims 1-17, 19-21, and 50-59.

A check for the fee required by 37 CFR 41.37(a)(2) and 37 CFR 41.20(b)(2), updated pursuant to the Fiscal Year 2005 Fee Schedule, in the amount of $500.00, is attached hereto. Please charge any additional amount owed, or credit any overpayment, to Deposit Account 19-3550.

Respectfully submitted,



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## CLAIMS APPENDIX

1. A targeted elastic laminate material, comprising:

at least one low tension zone, the low tension zone including a plurality of elastomeric first filaments, the first filaments including a first elastomeric polymer;

at least one high tension zone, the high tension zone including a plurality of elastomeric second filaments, the second filaments including a second elastomeric polymer, wherein the first filaments and the second filaments run in the same longitudinal direction; and

a first facing material bonded to at least a first side of the low tension zone and a first side of the high tension zone;

a second facing material bonded to at least a second side of the low tension zone and a second side of the high tension zone; and

a barrier layer positioned between at least a portion of each of the first and second facing materials.

2. The targeted elastic laminate material of Claim 1, wherein the first filaments and the second filaments each comprise a base polymer selected from the group consisting of styrene-isoprene-styrene block copolymers, styrene-butadiene-styrene block copolymers, styrene-ethylene/butylene-styrene block copolymers, styrene-ethylene/propylene-styrene-ethylene/propylene tetrablock copolymers, styrene-ethylene/propylene-styrene block copolymers, polyurethanes, elastomeric polyamides, elastomeric polyesters, elastomeric polyolefin homopolymers and copolymers, atactic polypropylenes, ethylene vinyl acetate copolymers, single-site or metallocene catalyzed polyolefins having a density less than about 0.89 grams/cc, and combinations thereof.

3. The targeted elastic laminate material of Claim 2, wherein the first filaments and the second filaments comprise the same base polymer, in different percentage amounts.

4. The targeted elastic laminate material of Claim 2, wherein the first filaments comprise a first base polymer and the second filaments comprise a second base polymer different from the first base polymer.

5. The targeted elastic laminate material of Claim 3, wherein the second filaments comprise the base polymer and a processing aid.

6. The targeted elastic laminate material of Claim 3, wherein the first and second filaments comprise the base polymer and a processing aid, in different percentage amounts.

7. The targeted elastic laminate material of Claim 5, wherein the processing aid comprises a polyethylene wax.

8. The targeted elastic laminate material of Claim 1, wherein the high tension zone has an elastic tension at least 10% greater than the low tension zone.

9. The targeted elastic laminate material of Claim 1, wherein the high tension zone has an elastic tension at least 50% greater than the low tension zone.

10. The targeted elastic laminate material of Claim 1, wherein the high tension zone has an elastic tension about 100% to about 800% greater than the low tension zone.

11. The targeted elastic laminate material of Claim 1, wherein the high tension zone has an elastic tension about 125% to about 500% greater than the low tension zone.

12. The targeted elastic laminate material of Claim 1, wherein the high tension zone has an elastic tension about 200% to about 400% greater than the low tension zone.

13. The targeted elastic laminate material of Claim 1, wherein the high tension zone is formed by placing the second filaments among some of the first filaments.

14. The targeted elastic laminate material of Claim 1, wherein the high tension zone is formed by placing the second filaments in a separate, non-overlapping region from the first filaments.

15. The targeted elastic laminate material of Claim 1, wherein at least one of the first and second facing materials comprises a material selected from a nonwoven web, a woven web and a film.

16. The targeted elastic laminate material of Claim 1, wherein at least one of the first and second facing materials comprises a spunbond material.

17. The targeted elastic laminate material of Claim 1, wherein at least one of the first and second facing materials comprises a meltblown continuous filament composite web.

19. The targeted elastic laminate material of Claim 1, wherein the low tension zone and the high tension zone are bonded to at least one of the first and second facing materials with an elastomeric adhesive.

20. A wound up roll of substantially uniform diameter comprising the material of Claim 1.

21. A garment comprising the targeted elastic laminate material of Claim 1.

50. A disposable garment comprising a targeted elastic laminate material, the targeted elastic laminate material comprising:

at least one low tension zone, the low tension zone having a plurality of first filaments made of a first elastomeric polymer composition;

at least one high tension zone, the high tension zone having a plurality of second filaments made of a second elastomeric polymer composition, wherein the first filaments and the second filaments run in the same longitudinal direction;

a first facing material bonded to at least a first side of the low tension zone and a first side of the high tension zone;

a second facing material bonded to at least a second side of the low tension zone and a second side of the high tension zone; and

a barrier layer positioned between at least a portion of each of the first and second facing materials.

51. The disposable garment of Claim 50, wherein the first and second filaments comprise substantially continuous filaments.

52. The disposable garment of Claim 50, comprising a diaper.

53. The disposable garment of Claim 50, comprising training pants.

54. The disposable garment of Claim 50, comprising swim wear.

55. The disposable garment of Claim 50, comprising absorbent underpants.

56. The disposable garment of Claim 50, comprising a baby wipe.

57. The disposable garment of Claim 50, comprising an adult incontinence product.

58. The disposable garment of Claim 50, comprising a feminine hygiene product.

59. The disposable garment of Claim 50, comprising a protective garment.

## EVIDENCE APPENDIX

Applicants are not submitting any extraneous evidence with this Appeal Brief.

## RELATED PROCEEDINGS APPENDIX

Applicants are not aware of any related appeals or interferences with regard to the present application.